

AMENDMENTS TO CLAIMS

Claim 1 (currently amended): A computer-implemented method for ~~providing keys for descrambling~~ processing scrambled content, the scrambled content being divided into frames, the method comprising:

identifying a plurality of frames to be descrambled;

for each frame of the plurality of frames, identifying a key period associated with a key for descrambling the frame; and

for at least one frame f of the plurality of frames:

substituting a substitute frame g for the frame f, the substitute frame g being chosen in order to reduce a total number of key periods associated with keys for descrambling all of the plurality of frames,

wherein the substituting comprises:

determining a first number of key periods to be skipped for each key period to be descrambled, the first number being greater than or equal to 1;

determining a plurality of groups of key periods, each group including one key period to be descrambled and the first number of key periods to be skipped;

determining a second number of frames to be provided from each group of the plurality of groups of key periods; and

for each one group of the plurality of groups of key periods, choosing the second number of frames to be provided from within the one key period to be descrambled, the one key period being comprised in the one group.

Claim 2 (original): The method according to claim 1 and also comprising:

producing one key for each key period.

Claim 3 (original): The method according to claim 1 and also comprising:

producing exactly one key for each key period.

Claim 4 (original): The method according to claim 2 and wherein the producing comprises producing from an ECM.

Claim 5 (original): The method according to claim 3 and wherein the producing comprises producing from an ECM.

Claim 6 (original): The method according to claim 1 and also comprising:
rendering at least one of the plurality of frames.

Claim 7 (original): The method according to claim 6 and wherein the rendering comprises rendering all of the plurality of frames.

Claim 8 (cancelled)

Claim 9 (currently amended): The method according to claim [[8]] 1 and wherein [[N]] the second number is greater than or equal to 2.

Claim 10 (currently amended): The method according to claim 9 and wherein the [[N]] second number of frames are evenly spaced within the one key period.

Claim 11 (currently amended): A computer-implemented method for ~~providing keys for descrambling~~ processing scrambled content, the scrambled content being divided into frames, the method comprising:

identifying a plurality of frames to be descrambled;

for each frame of the plurality of frames, identifying a key period associated with a key for descrambling the frame; and

reducing a total number of key periods associated with keys for descrambling all of the plurality of frames by performing the following:

_____for each frame f of the plurality of frames:

_____determining whether to substitute a substitute frame g for the frame f based, at least in part, on a distance between frame g and frame f, and based, at least in part, on the identified key period associated with frame g and the identified key period associated with frame f; and ~~and, at least in part, on a~~

~~goal of reducing a total number of key periods associated with keys for descrambling all of the plurality of frames; and~~

based on a result of the determining, substituting frame g for frame f.

Claim 12 (original): The method according to claim 11 and also comprising:
producing one key for each key period.

Claim 13 (original): The method according to claim 11 and also comprising:
producing exactly one key for each key period.

Claim 14 (original): The method according to claim 12 and wherein the producing comprises producing from an ECM.

Claim 15 (original): The method according to claim 13 and wherein the producing comprises producing from an ECM.

Claim 16 (original): The method according to claim 11 and also comprising:
rendering at least one of the plurality of frames.

Claim 17 (original): The method according to claim 16 and wherein the rendering comprises rendering all of the plurality of frames.

Claim 18 (currently amended): Apparatus for processing ~~providing keys for descrambling~~ scrambled content, the scrambled content being divided into frames, the apparatus comprising:

a frame identifier identifying a plurality of frames to be descrambled;

a key period identifier operative, for each frame of the plurality of frames, to identify a key period associated with a key for descrambling the frame;
and

a frame substitutor operative, for at least one frame f of the plurality of frames, to substitute a substitute frame g for the frame f, the substitute frame g being chosen in order to reduce a total number of key periods associated with keys for descrambling all of the plurality of frames, the frame substitutor being operative to:

determine a first number of key periods to be skipped for each key period to be descrambled, the first number being greater than or equal to 1;

determine a plurality of groups of key periods, each group including one key period to be descrambled and the first number of key periods to be skipped;

determine a second number of frames to be provided from each group of the plurality of groups of key periods; and

for each one group of the plurality of groups of key periods, choose the second number of frames to be provided from within the one key period to be descrambled, the one key period being comprised in the one group.

Claim 19 (currently amended): Apparatus for processing ~~providing keys for descrambling~~ scrambled content, the scrambled content being divided into frames, the apparatus comprising:

a frame identifier identifying a plurality of frames to be descrambled;

a key period identifier operative, for each frame of the plurality of frames, to identify a key period associated with a key for descrambling the frame; and

a frame substitutor operative to reduce a total number of key periods associated with keys for descrambling all of the plurality of frames by performing the following:[,.]

for each frame f of the plurality of frames:[,.]

determining to determine whether to substitute a substitute frame g for the frame f based, at least in part, on a distance between frame g and frame f, and based, at least in part, on the identified key period

associated with frame g and the identified key period associated with frame f; and,
~~at least in part, on a goal of reducing a total number of key periods associated with~~
~~keys for descrambling all of the plurality of frames, and,~~

_____ based on a result of the determining, substituting to
~~substitute~~ frame g for frame f.

Claim 20 (currently amended): Apparatus for processing ~~providing keys for~~
~~descrambling~~ scrambled content, the scrambled content being divided into frames,
the apparatus comprising:

means for identifying a plurality of frames to be descrambled;

means for identifying, for each frame of the plurality of frames, a
key period associated with a key for descrambling the frame; and

means for substituting, for at least one frame f of the plurality of
frames, a substitute frame g for the frame f, the substitute frame g being chosen in
order to reduce a total number of key periods associated with keys for
descrambling all of the plurality of frames, the means for substituting performing
the following:

_____ determining a first number of key periods to be skipped for
each key period to be descrambled, the first number being greater than or equal to
1;

_____ determining a plurality of groups of key periods, each group
including one key period to be descrambled and the first number of key periods to
be skipped;

_____ determining a second number of frames to be provided from
each group of the plurality of groups of key periods; and

_____ for each one group of the plurality of groups of key periods,
choosing the second number of frames to be provided from within the one key
period to be descrambled, the one key period being comprised in the one group.

Claim 21 (currently amended): Apparatus for processing ~~providing keys for~~
~~descrambling~~ scrambled content, the scrambled content being divided into frames,
the apparatus comprising:

means for identifying a plurality of frames to be descrambled;

means for identifying, for each frame of the plurality of frames, a key period associated with a key for descrambling the frame; and

means for reducing a total number of key periods associated with keys for descrambling all of the plurality of frames by performing the following for each frame f of the plurality of frames:

determining whether to substitute a substitute frame g for the frame f based, at least in part, on a distance between frame g and frame f, and based, at least in part, on the identified key period associated with frame g and the identified key period associated with frame f ~~and, at least in part, on a goal of reducing a total number of key periods associated with keys for descrambling all of the plurality of frames;~~ and

based on a result of the determining, substituting frame g for frame f.